

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-20 (Canceled)

21 (Withdrawn) An isolated skeletal muscle stem cell.

22 (Withdrawn) A clone comprising a plurality of isolated skeletal muscle stem cells.

23 (Withdrawn) A purified preparation of mammalian cells, at least 50% of which are muscle stem cells that can produce skeletal muscle cells.

24 (Withdrawn) The purified preparation of mammalian cells of claim 23, wherein at least 95% of the cells are muscle stem cells that can produce skeletal muscle cells.

25 (Currently Amended) An isolated human muscle stem cell that produces, as progeny, myoblasts.

26. (Previously Presented) The cell of claim 25, wherein the cell comprises an exogenous nucleic acid sequence.

27. (Currently Amended) The cell of claim [[25]] 26, wherein the exogenous nucleic acid sequence is operably linked to a muscle stem cell-active promoter.

28. (Previously Presented) The cell of claim 27, wherein the muscle stem cell-active promoter is a Bcl-2 promoter.

29. (Previously Presented) The cell of claim 26, wherein the exogenous nucleic acid sequence encodes a marker protein.

30. (Previously Presented) The cell of claim 26, wherein the exogenous nucleic acid sequence encodes a cell surface polypeptide.

31. (Previously Presented) The cell of claim 26, wherein the exogenous nucleic acid sequence encodes a protein selected from the group consisting of CD8, influenza virus hemagglutinin,  $\beta$ -galactosidase, green fluorescent protein, catechol 2,3-dioxygenase, and aequorin.

32-33 (Canceled)

34. (Currently Amended) A clone comprising a plurality of isolated human muscle stem cells that produce, as progeny, myoblasts.

35. (Currently Amended) A purified preparation of mammalian cells, at least 50% of which are human muscle stem cells that can produce, as progeny, myoblasts.

36. (Currently Amended) The purified preparation of mammalian cells of claim 35, wherein at least 95% of the cells are human muscle stem cells that can produce, as progeny, myoblasts.

37 (Withdrawn) An isolated cardiac muscle stem cell.

38 (Withdrawn) The cell of claim 37, wherein the cell comprises an exogenous nucleic acid sequence.

39. (Currently Amended) The cell of claim [[27]] 38, wherein the exogenous nucleic acid sequence is operably linked to a muscle stem cell-active promoter.

40. (Withdrawn) The cell of claim 39, wherein the muscle stem cell-active promoter is a Bcl-2 promoter.

41. (Withdrawn) The cell of claim 38, wherein the exogenous nucleic acid sequence encodes a marker protein.

42. (Withdrawn) The cell of claim 38, wherein the exogenous nucleic acid sequence encodes a cell surface polypeptide.

43. (Withdrawn) The cell of claim 38, wherein the exogenous nucleic acid sequence encodes a protein selected from the group consisting of CD8, influenza virus hemagglutinin,  $\beta$ -galactosidase, green fluorescent protein, catechol 2,3-dioxygenase, and aequorin.

44. (Withdrawn) The isolated muscle stem cell of claim 37, wherein the cell expresses an apoptosis-resistance gene.

45. (Withdrawn) The isolated muscle stem cell of claim 44, wherein the apoptosis-resistance gene is Bcl-2.

46. (Withdrawn) A clone comprising a plurality of isolated cardiac muscle stem cells.

47. (Withdrawn) A purified preparation of mammalian cells, at least 50% of which are muscle stem cells that can produce cardiac muscle cells.

48. (Withdrawn) The purified preparation of mammalian cells of claim 47, wherein at least 95% of the cells are muscle stem cells that can produce cardiac muscle cells.

49. (Withdrawn) The clone of claim 22, wherein the cells express Bcl-2.

50. (Previously Presented) The clone of claim 34, wherein the cells express Bcl-2.

51. (Withdrawn) The clone of claim 46, wherein the cells express Bcl-2.

52. (Withdrawn) The purified preparation of claim 23, wherein the muscle stem cells that can produce skeletal muscle stem cells express Bcl-2.

53. (Currently Amended) The purified preparation of claim 35, wherein the human muscle stem cells ~~that can produce myoblasts~~ express Bcl-2.

54. (Withdrawn) The purified preparation of claim 47, wherein the muscle stem cells that can produce cardiac muscle cells express Bcl-2.